**III. REMARKS**

Claim 44 has been rejected under 35 U.S.C. 102(a) as being anticipated by Bonora. The Applicants disagree. Claim 44 recites a material handling system with a drive track, wherein the drive track is modular with track modules (each defining a length of the drive track) adapted to be joined together to form extended lengths of the drive track during drive track installation. Claim 44 also recites each track module having integral track elements interfacing with the container for driving the container. As has been noted before Bonora disclosed a conveyor system 10 that includes a pair of rails 12, 14 (Fig. 1). Bonora does not disclose anywhere that the rails 12, 14 are modular, with each module having at least one of the track elements thereon for driving the container, as otherwise called for in claim 44. Nor are these features inherent in Bonora, (i.e. necessary) from what is expressly disclosed. On the contrary, it appears that the rails 12, 14 shown in Bonora may be non-modular drive train assembly units. In other words, the components that form the lengths of the rails 12, 14 are not drive track modules where each module has at least one of the track elements integral thereto. In Fig. 2 of Bonora, rails are shown at angles to each other. For example, cross sections 20 are shown perpendicular to other track sections. However, the disclosure in Bonora of rails at angles to each other does not necessarily mean that the drive rails are modular. There is nothing disclosed in Bonora that makes it necessary that the rails be modular with each module having track elements interfacing with the container for driving the container wherein the drive track is modular with modules adapted to be joined

together to form extended lengths of the drive track during installation. Because Bonora does not disclose all of the features recited in claim 44, the rejection should be withdrawn.

Claims 1, 15-18, 20, 34, 35 and 39-40 have been rejected under 35 U.S.C. 103 as being obvious in view of Bonora, Lin and Mizokawa. The Applicant respectfully disagrees.

Establishing a prima facie case still requires that the cited prior art references disclose or suggest all the features recited in the claims (see MPEP 2142-2143). The Supreme Court in *KSR International v. Corp. Teleflex Inc.* 82 USPQ 2d 1385 has not eliminated the requirement that to support a rejection/finding of obviousness, the cited prior art must disclose or suggest all the claimed features. The Applicant respectfully submits that the Examiner has failed to set forth a prima facie case of obviousness, because in effect, the cited prior art references (i.e. "Bonora, Lin and Mizokawa) fail to disclose or suggest, alone or in combination all of the features recited in claim 1.

For example, claim 1 recites that the first transport section is a vehicle based section having a transport vehicle capable of moving along the first track, the second track section (is not vehicle based) and has a motor for (moving and) stopping the container on the second track <u>in alignment with</u> the transport vehicle on the first track. These features are not disclosed or suggested in either Bonora, Lin and Mizokawa, alone or in combination.

Bonora and Lin have been described at length in Applicant's prior response, the arguments of which are incorporated by reference herein. In substantive part, Bonora discloses a conveyor system 10. The Examiner appears to agree that there is no disclosure in Bonora regarding a first transport section that is a vehicle based section having a transport vehicle that moves along the first track. The Examiner states that Bonora discloses that the conveyor 10 can move and stop the container at predetermined locations for access by a transfer assembly 30 (that includes some lift capability and transfer assembly to bring and position the container at a load port, col. 7, lines 1-4). (The Examiner characterizes the transfer assembly as an overhead lift, but this appears to be incorrect as Bonora discloses in col. 6, lines 12-14, that the conveyor system 10 is itself located in the overhead frames and there is otherwise no mention whatsoever as to type and location of the lift in the transfer assembly 30). In any event, transfer assembly 30 clearly is not the same as a vehicle capable of moving along the first track of the first transport section, and the conveyor 10 in Bonora does not have a motor stopping the container (on the second track) in alignment with the transport vehicle on the first track of the first track section, as otherwise called for in claim 1. For its part, Lin, which has also been described at length in Applicant's prior responses, fails to cure the defects in Bonora. As has been noted before, Lin merely discloses that a pod carrying vehicle 36, on an (overhead) track 38, can be aligned with containers 60 on a conveyor belt 52. Aligning the vehicle 36 to a position/container 60 on a conveyor belt 52, as disclosed in Lin says nothing about the conveyor having a motor for stopping the container in alignment with the transport

vehicle. As noted before, aligning the vehicle 36 to the container 60 on the conveyor in Lin does not necessitate that the conveyor having a motor capable of stopping the container in alignment with the vehicle.

Further, Mizokawa also fails to disclose or suggest the features recited in claim 1. Thus, as neither Lin, nor Mizokawa disclose the features missing in Bonora, the combination of Bonora, Lin and Mizokawa fails to disclose or suggest the features recited in claim 1. Claims 1-20 are patentable over the cited prior art.

Claim 34 recites a second transport section that has one motor connected to the second track, the one motor being capable of bi-directionally driving the containers substantially simultaneously in opposite directions on at least a portion of the second track. As described above, Bonora discloses a drive rail 12 with several drive assemblies 40. Each drive assembly has several drive wheels 42, which are driven in unison via a drive belt 46 coupled to a motor 48. Each motor can transport a pod 8 in only one direction at a time. Therefore, Bonora does not disclose a transport section, which is not vehicle based, with one motor connected to the second track the one motor being capable of driving the containers substantially simultaneously in opposite directions on at least a portion of the second track, as recited in claim 34. In Lin, the FOUPS are transported by the conveyor belt when located within one of the open-top containers 60. Thus, if multiple FOUPS are on the belt 52, the can only be moved by the belt in the same direction and at the same rate of speed. Lin does not disclose a transport section, which is not vehicle based, with a motor connected to

the second track capable of driving the containers substantially simultaneously in opposite directions on at least a portion of the second track, as recited in claim 34. As neither reference discloses these features of claim 34, the combination of references cannot provide features that are not disclosed or suggested by either, and hence, the rejection of claims 34-38 should be withdrawn.

Mizokawa disclosed a wafer processing apparatus, with an enclosed transport chamber having a wafer transport robot 13 that is moved along a guide rail 17 by means of a linear motor. The Examiner however has failed to provide any valid rationale as to why Mizokawa, dealing with wafer transport robots in a wafer transport apparatus would be combined with Bonora and Lin by one skilled in the art. Though debris is a concern in a wafer transport chamber of a processing tool, in which the wafer is exposed such as in Mizokawa, Bonora and Lin deal with transporting pods in which the wafers are enclosed, and cleanliness of the wafers is well maintained regardless of whether linear motors are used or not. It is specious to argue that one skilled in the art would combine Mizokawa with Bonora and Lin in order to increase cleanliness, in view of the particulates generated by the overhead transport in Lin. Claims 34-38 are patentable over the cited prior art.

Claim 39 recites a first transport section having a first track and a transport vehicle movably supported from the first track and capable of picking a container. Claim 39 further recites a second transport section having a conveyor track with a motor connected to the conveyor track for moving the container on the track. The motor is adapted for stopping the container at any location along a portion of the conveyor track so that any location along the track can be a predetermined position relative to the transport vehicle for providing a pickplace for the vehicle to pick the container. As discussed above, Lin shows an overhead transport track 38 with a vehicle 36 thereon, positioned above a conveyor belt 52. The conveyor belt can accept FOUPS from the overhead vehicle within open-top containers 60. Lin does not disclose stopping the container at any location along a portion of the conveyor track so that the container can be picked from the belly by the vehicle from any locations. Lin does not even disclose stopping at a single location so that the container is in a predetermined position relative to a transport vehicle. Rather, Lin merely states that the container can accept a FOUP from the transport vehicle 36, without stating how this is accomplished. Bonora shows pods 8 driven along rails 12, 14 by wheels 42. The rails are divided in the lengthwise direction into a plurality of zones, with each zone having one or more of the drive assemblies 40 (col. 8 lines 5-11). Bonora discloses sensors 53 for detecting when a pod 8 enters or leaves one of the zones. Data from the sensors 53, indicating the entry or exit of a pod 8 from a zone, is used to activate downstream drive zones so that wheels in downstream zones are active and operating at the same speed as the previous zone when the pod 8 reaches the zone (Fig. 6; col. 8 lines 56-64). The conveyor system 10 of Bonora does not have a motor

adapted for stopping a container at any location along a portion of the conveyor track so that any location along the track can be a predetermined position, for providing a pick place for the vehicle to pick the container as otherwise called for in claim 39.

The Examiner argues that combining Lin with Bonora, by providing the device of Bonora with the overhead transport of Lin, would result in a device with all of the features of claim 39. This is not correct. As noted before, neither in nor Bonora disclose or suggest the features recited in claim 39 and hence the combination of Lin and Bonora cannot result in features that are not disclosed or suggested by either.

The Examiner has rejected claims 21-26 and 28-33 under 35 U.S.C. 103(a) as being unpatentable over Bonora in view of Belna. The Applicants disagree. Claim 21 recites a semiconductor workpiece container transport system. The system comprises at least one semiconductor workpiece container having a one-piece frame assembly. The system further comprises a track for movably supporting the at least one container so that the at least one container is capable of moving along the track. A motor is connected to the track for moving the at least one container along the track, and at least a part of the motor is mounted to the frame assembly of the at least one container so that the frame assembly and the part of the motor mounted thereto are removed from the track as a unit. The Bonora reference has been described above. Bonora does not disclose at least a part of the motor mounted to a frame assembly of the at least one container, as recited in claim 21. Nor does Bonora disclose a container comprising a motor portion mounted to a frame, the

motor portion being adapted to cooperate with another motor portion of a transport system for driving the container along a track, as recited in claim 28. As has been described below, Belna discloses a semiconductor wafer transportation mechanism 10 (Fig. 1). The mechanism includes a track 12. A car 14 rides on the track 12 and has a U-shaped fork 20 for supporting a semiconductor wafer on top of the fork (col. 3 lines 49-54). Permanent magnets 42 in the car interact with a series of electromagnetic coils 40 supported on the track. The coils are sequentially energized to move the car along the track (col. 3 lines 3-20). Wafers may be transferred between cars by levitating a car holding a wafer and lowering the wafer onto another car. This is used to transfer individual wafers between track sections (col. 3 line 49 - col. 4 line 1). The Examiner states that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the device of Bonora with the linear drive as taught by Belna. The Examiner states that one would modify the Bonora system in this manner in order to move a carrier while limiting the amount of wear debris generated so as to maintain facility cleanliness at acceptable levels. It is not correct that one of ordinary skill in the art would be so motivated. It would not be obvious to combine the references because the systems of Bonora and Belna have disparate functions. The Bonora system is an intertool system for transporting pods between various tools. In contrast, the Belna system transports individual wafers within of a tool. It would not be obvious to one skilled in the art to combine Bonora and Belna, because the references address separate functions. One aspect of their disparate functions is that within a tool precise wafer positioning is generally required, but this is not so in an intertool transport system

such as that of Bonora. Hence the Bonora system only senses the entry and exit of pods from the various zones (e.g. to prevent collisions), but does not precisely position the pods. In other words, Bonora is concerned with transporting wafers from one location to another location, whereas Belna is concerned with precisely locating a wafer as required for functioning of the tool within which the system operates. Furthermore, if one were to combine Bonora and Belna, the Belna system would be rendered inoperable. Bonora discloses a pod 8 supported by wheels 42. Eliminating the wheels of Bonora to provide a linear drive as in Belna would leave the pod unsupported, rendering the device unusable. Nonetheless, even if combined, Belna fails to correct the defects in Bonora. Neither Bonora, nor Belna disclose part of the motor being mounted to the frame so that the frame assembly and motor part mounted thereto are removed from the track as a unit causing disconnection of the part of the motor mounted to the frame from the motor part connected to the track. In Belna, the cars are not removable from the track. Hence, there is nothing in either Belna (no removable cars) nor Bonora, (container without motor) to suggest such mounting or motor part to carrier frame as called for in claims 21. Claims 21-26 and 28-33 are patentable over the combination of Bonora and Belna. The rejections should be withdrawn.

Each of the independent claims 1, 21, 28, 34, 39 and 44 are patentable over the prior art of record for the reasons discussed above. While each of the dependent claims contains its own patentable subject matter, each dependent claim should also be allowable at least because it depends from one of the allowable independent claims. Accordingly, to expedite

prosecution at this time, no further comment on these claims will be made.

The Commissioner is hereby authorized charge any additional fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

Janik Marcovici
Reg. No.: 42,841

Perman & Green, LLP
425 Post Road
Fairfield, CT 06824
(203) 259-1800
Customer No.: 2512

4/23/08
Date

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date indicated below as first class mail in an envelope addressed to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 4/23/08

Signature: _____
Person Making Deposit